Abstract of the Disclosure

Conventionally, the bit rate of a voiceless part of a voice signal is lowered distinguishing the voiceless part from the voice part; according to the invention, the bit rate of the voice part is also lowered. The voice part is constituted of a vowel sound and a consonant sound. The vowel sound can be reproduced with almost no degradation of the quality by reproducing both the vocal track component and the pitch component even if the encoding bit rate of the other components is lowered. Therefore, when the vowel sound of the voice part is encoded, the average bit rate when the voice part is sounded is lowered by reducing the number of the encoding bits of a fixed codebook and by lowering the bit rate to half the rate. To discriminate a vowel sound, the relation between the LPC spectrum and the LSP coefficients is used. The vowel sound has high peaks in the LPC spectrum, and the LSP coefficients are present on both sides of the peaks. Therefore, when adjacent LSP coefficients are closer to each other than a predetermined threshold, it is judged that a peak is present. Such judgment is made for some of the peaks, thereby judging whether or not the sound is a vowel.